

REMARKS

Claims 1-26, 28-44, and 46-57 are pending in the application. Claims 27, 45, and 58 have been cancelled. Claims 1, 6, 7, 9, 10, 12-14, 18, 19, 22, 28, 29, 31-35, 39, 46, and 52 have been amended to further define the invention. No new matter was introduced by these amendments. Applicants submit that a new search is not necessitated by the amendments contained herein as previous features from dependent claims, which were previously searched, have been incorporated into the independent claims.

Rejections under 35 USC 102

Claims 1-58 were rejected as being unpatentable over US Patent 6,009,210 to Kang et al. Applicants respectfully request that this rejection be withdrawn in light of the amendments and arguments contained herein.

Applicants respectfully submit that Kang does not disclose any depth capturing capability. The claims as amended incorporate the feature of adjusting a scale of the scene according to a change in a distance of the head of the user from a capture device or some variant thereof. Nowhere does Kang disclose this feature. The Examiner has pointed to lines 60-67 of columns 3 and 4. These respective sections refer to 2 dimensional tracking using an affine model. Kang discloses tracking in the x and y direction but nowhere is depth (z direction) tracked (See Figures 1-3 only illustrating x and y tracking). As discussed below, the zoom factor mentioned in column 4 of the cited section can only be determined when all other motion is disabled.


Applicants further submit that one skilled in the art would not modify Kang to adjust a scale of the scene according to a change in a distance of the head of the user from a capture device as specified in claims 1, 14, 22, 28, 33, 39, 46 and 52, or include a camera having depth capability as specified in claims 7 and 31, since the change in relative object depth compared to the distance to the camera must be small under the affine model (see column 5 lines 58-63). That is, for the affine model to work it is required that the surface appear planar. In order for the face to appear planar, the distance from the user to the camera must be relatively large. The use of a depth camera would render moot the entire affine model principles for which Kang is constructed.

Furthermore, Kang points out that when zooming is detected all other motion must be disabled (see column 7, lines 45-47). Claims 1, 14, 22, 28, 33, 39, 46 and 52 include the feature of adjusting a scale of the scene according to a change in a distance of the head of the user from a capture device while other adjustments are made in response to detected motion. Consequently, Kang cannot anticipate the independent claims as amended. Furthermore to modify Kang to incorporate a camera having depth capability would change the principle of operation of on which Kang is based, as explained above.

In view of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. A notice of allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 774-6921. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. SONY029). A copy of the transmittal is enclosed for this purpose.

Application No. 10/663,236
Office action response dated May 7, 2007
Responsive to Office Action Dated March 7, 2007

Respectfully submitted,
MARTINE PENILLA & GENCARELLA, LLP

A handwritten signature in black ink, appearing to read "Michael L. Gencarella", written over a horizontal line.

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